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6 **IN THE UNITED STATES DISTRICT COURT**
7 **FOR THE DISTRICT OF ARIZONA**

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9 Lighting Defense Group LLC,

No. CV-22-01476-PHX-SMB

10 Plaintiff,

ORDER

11 v.

12 Shanghai Sansi Electronic Engineering
13 Company Limited,

14 Defendant.

15 Pending before the Court are Plaintiffs' and Defendants' opening claim construction
16 briefs and responses (Docs. 43, 45, 46 & 49). On December 1, 2023, the Court conducted
17 a Markman Hearing (the "Hearing") in this matter, pursuant to *Markman v. Westview
18 Instruments, Inc.* ("Markman II"), 517 U.S. 370 (1996). Consistent with the *Markman*
19 requirements, the Court will construe the disputed claims in the following patents at issue:
20 U.S. Patent Nos. 7,874,700 ("the '700 patent"), 8,256,923 ("the '923 patent"), 8,939,608
21 ("the '608 patent"), and 9,163,807 ("the '807 patent") (collectively, the "Asserted
22 Patents").

23 **I. BACKGROUND**

24 This claim construction determination arises out of a patent dispute between
25 Lighting Defense Group ("LDG") and Shanghai Sansi Electronic Engineering Co., LTD
26 ("Sansi"). (Doc 1 at 2.) LDG owns 40 U.S. patents, including those at issue here. (*Id.*
27 ¶¶ 1–5.) In June 2020, LDG contacted Sansi about their alleged patent infringement on
28 three patents, notifying them that they need a license to continue "making, using, selling,

1 importing or otherwise offering certain LED products.” (*Id.* ¶ 7.) In August 2020 Sansi
 2 responded contending that they did not infringe on the patents, and that a license would be
 3 unnecessary. (*Id.* at 3 ¶ 9.) After Sansi’s failure to enter into licensing discussions, LDG
 4 filed a complaint in district court for declaratory judgment attempting to have Sansi’s
 5 products delisted from Amazon. (*Id.* at 5 ¶¶ 17–19.) After a “tentative ruling” dismissing
 6 this complaint, LDG voluntarily dismissed the action. (*Id.* ¶ 19.) LDG then refiled
 7 “seeking redress” against Sansi for infringement of three patents. (*Id.* ¶ 21.) As part of
 8 this infringement claim the parties filed claim construction briefs asking the court to
 9 construe certain terminology in the patents’ claims. (Docs. 43, 45, 46 & 49). These briefs
 10 are before the Court here.

11 **II. LEGAL STANDARD**

12 There are two steps in an infringement analysis. “The first step is to determine the
 13 meaning and scope of the patent claims asserted to be infringed. The second step is to
 14 compare the properly construed claims to the device accused of infringing.” *Markman v.*
 15 *Westview Instruments, Inc.*, 52 F.3d 967, 976 (9th Cir. 1995), *aff’d* 517 U.S. 370 (1996).
 16 The first issue—known as claim construction or interpretation—is now fully joined before
 17 the court after substantial briefing and oral argument by the parties. “[T]he construction
 18 of a patent, including terms of art within its claim, is exclusively within the province of the
 19 court.” *Markman II*, 517 U.S. at 372. Claim construction is “the process of giving proper
 20 meaning to the claim language,” the fundamental process that defines the scope of the
 21 protected invention. *Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997).

22 “It is well-settled that, in interpreting an asserted claim, the court should look first
 23 to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the
 24 specification and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic,*
 25 *Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). “First, we look to the words of the claims
 26 themselves, both asserted and nonasserted, to define the scope of the patented invention.”
 27 *Id.* Second, we should look at the specification to determine if a term has been given a
 28 special definition. *Id.* “Third, the court may also consider the prosecution history of the

1 patent, if in evidence.” *Id.* Ordinarily, “intrinsic evidence alone will resolve any ambiguity
 2 in a disputed claim” therefore extrinsic evidence should not be relied upon. *Id.* at 1583.

3 Courts, however, may consider extrinsic evidence for education purposes and to
 4 “help the court determine what a person of ordinary skill in the art would understand claim
 5 terms to mean”. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1319 (Fed. Cir. 2005). But the
 6 Court must discount any expert testimony “that is clearly at odds with the claim
 7 construction mandated by the claims themselves, the written description, and the
 8 prosecution history, in other words, with the written record of the patent.” *Id.* at 1318
 9 (internal quotations omitted).

10 There may be claims of indefiniteness in claim construction arguments. The Patent
 11 Act requires a patent specification to “conclude with one or more claims particularly
 12 pointing out and distinctly claiming the subject matter which the inventor . . . regards as
 13 the invention.” 35 U.S.C. § 112. A patent must “be precise enough to afford clear notice
 14 of what is claimed, thereby apprising the public of what is still open to them.” *Nautilus,*
 15 *Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 909 (2014) (cleaned up). Thus, “a patent is
 16 invalid for indefiniteness if its claims, read in light of the specification delineating the
 17 patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled
 18 in the art about the scope of the invention.” *Id.* at 901. The burden is on the patent
 19 challenger to prove indefiniteness by clear and convincing evidence. *Extremity Med., LLC*
 20 *v. Fusion Orthopedics, LLC*, No. CV-22-00723-PHX-GMS, 2023 WL 4408270, at *9 (D.
 21 Ariz. July 7, 2023).

22 **III. DISCUSSION**

23 There are thirteen terms and/or phrases in dispute. The Court will walk through
 24 each of these terms, one subsection at a time, going in order of how they were presented.
 25 For clarity, each subsection begins with a side-by-side chart presenting each side’s position
 26 on how the disputed term should be defined.

27 **A. Light Fixture**

28 Sansi Construction

LDG Construction

1	Limiting	Not limiting
2	“a downward-facing lighting unit which	“a system for producing, controlling,
3	includes one or more light emitting	and/or distributing light for illumination.”
4	elements, one or more sockets, connectors,	
5	or surfaces configured to position and	
6	connect the light emitting elements to a	
7	power supply, an optical device configured	
8	to distribute light from the light emitting	
9	elements, and mechanical components for	
10	supporting or suspending the fixture. A	
11	light bulb or LED is a light emitting	
12	element, not a light fixture.”	

13 (Doc. 61-1 at 2.)

14 The parties dispute several things regarding the term “light fixture.” First, the
 15 parties dispute whether the term, as used in the preamble, is limiting. “Whether to treat a
 16 preamble as a limitation is ‘determined on the facts of each case in light of the overall form
 17 of the claim, and the invention as described in the specification and illuminated in the
 18 prosecution history.’” *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1357 (Fed. Cir.
 19 2012) (quoting *Applied Materials, Inc. v. Adv. Semiconductor Materials Am., Inc.*, 98 F.3d
 20 1563, 1572–73 (Fed. Cir. 1996)). The preamble may also be limiting when it is “essential
 21 to understand limitations or terms in the claim body,” terms in the body of the claim
 22 “depend[]on a particular disputed preamble phrase for antecedent basis,” or there was
 23 “clear reliance on the preamble during prosecution to distinguish the claimed invention
 24 from the prior art.” *Georgetown R. Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1236 (Fed.
 25 Cir. 2017) (quoting *Catalina Mktg. Intl., Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809
 26 (Fed. Cir. 2002)).

27 Here, the preamble in claims 1,16, and 22 of the ’700 patent reads “A light fixture,
 28 comprising.” (Doc. 43-2 at 13.) Sansi argues that the preamble is necessary to understand

1 the claims because the body of the claims contain vague structural definitions. (Doc. 43 at
 2 10.) They further argue that without the limitation of “light fixture,” one reading the claim
 3 cannot understand what it is. (*Id.*) LDG disagrees and argues that the claims do define a
 4 structurally complete invention and “light fixture” is merely an intended use. (Doc. 45 at
 5 11.) The Court agrees with Sansi. The specification repeatedly uses the term “light fixture”
 6 to discuss what the invention is. Thus, the preamble language is necessary to give meaning
 7 to the claims.

8 Because the Court finds the preamble to be limiting, the Court will construe the
 9 term. First, Sansi proposes adding two limitations to the construction for which the Court
 10 finds no support. The limitations are “downward-facing” and “a light bulb or LED is a
 11 light emitting element, not a light fixture.” (Doc. 43-3 at 11.) However, after reviewing
 12 the claim language, the Court finds nothing requiring the light fixture to have a downward-
 13 facing orientation for the light fixture. Similarly, there is nothing in the claim language,
 14 the specification, or the prosecution history that informs any express disclaimer or
 15 definition excluding a light bulb. *See Omega Eng’g, Inc, v. Raytek Corp.*, 334 F.3d 1314,
 16 1327–28 (Fed. Cir. 2003) (explaining that there must be support in the specification or the
 17 prosecution history for a negative limitation); *Vehicle IP, LLC v. AT&T Mobility, LLC*, 594
 18 F. App’x 636, 642 (Fed. Cir. 2014) (holding that an express disclaimer or independent
 19 lexicography was needed to justify a negative limitation).

20 Second, Sansi argues that the specification defines light fixture as one or more light
 21 emitting elements, one or more sockets, connectors, or surfaces configured to position and
 22 connect the light emitting elements to a power supply, an optical device configured to
 23 distribute light from the light emitting elements, and mechanical components for
 24 supporting or suspending the fixture. However, this is inaccurate. This language is used
 25 to describe “a typical luminaire” but *not* this specific invention. Alternatively, LDG’s
 26 proposed construction stems from the specification, stating, “a luminaire is a system for
 27 producing, controlling, and/or distributing light for illumination.” The specification then
 28 offers examples of light fixtures including Sansi’s proposed definition. Additionally, the

1 specification language discusses the distribution of light throughout, which further
 2 supports LDG's construction. Because it is best supported by the specification, the Court
 3 adopts LDG's proposed construction.

4 **B. Top/Bottom**

Sansi Construction	LDG Construction
<p>6 The requirement of "second," "bottom" or 7 "distal" end/aperture requires a fixture 8 installed and facing downward way from 9 its mounting point; the "top" or "first" 10 end/aperture requires the same fixture 11 installation facing downward to orient the 12 "top" or "first" end relative to the 13 "second," "bottom" or "distal" end.</p> <p>14 Alternatively, indefinite.</p>	<p>Not indefinite.</p> <p>Plain and Ordinary meaning: "top" refers to proximity to the mounting member. "First" or "second" can be any two. "Bottom" and "distal" are spaced apart from "top" or "first"</p> <p>To the extent these terms are construed, the terms must be construed in pairs as they appear in the claims as they relate to each in those pairs:</p> <p>first end: an end of the member.</p> <p>second end: an end of the member that is a different end of the member than the first end.</p> <p>first aperture: an opening in the member.</p> <p>second aperture: an opening in the member that is a different opening in the member than the first aperture.</p> <p>top end: the end of the member that is near or proximate to a mounting member or element.</p> <p>second end: an end of the member that is a different end of the member than the top</p>

	<p>end.</p> <p>top end: the end of the member that is near or proximate to a mounting member or element.</p> <p>Bottom end: an end of the member that is a different end of the member than the top end and that is spaced apart from the top end.</p> <p>first aperture: an opening in the member.</p> <p>second distal aperture: an opening in the member that is a different opening in the member than the first aperture and that is spaced apart from the first aperture.</p>
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14 (Doc. 61-1 at 5.)

15 Sansi argues that if the light fixture is not construed to require a downward-facing
 16 orientation, then all of these terms are indefinite. A patent claim is indefinite and therefore
 17 invalid if, when “read in light of the specification delineating the patent, and the
 18 prosecution history, [the claim] fail[s] to inform, with reasonable certainty, those skilled in
 19 the art about the scope of the invention.” *Nautilus*, 572 U.S. 898 at 901. Sansi has the
 20 burden of proving indefiniteness by clear and convincing evidence. *BASF Corp. v.*
 21 *Johnson Matthey Inc.*, 875 F.3d 1360, 1365 (Fed. Cir. 2017). Alternatively, LDG argues
 22 that top and bottom are easily understood terms therefore need no construction. The Court
 23 agrees.

24 Claim 1 of the ’700 patent reads that a light fixture has a member that comprises: “a
 25 first end comprising a first aperture,” “a second end comprising a second aperture,” and “a
 26 channel extending from the first aperture to the second aperture,” where “air passes through
 27 the channel to transfer heat from the member.” (Doc. 33-2 at 14.) Claim 16 of the ’700
 28 patent reads a light fixture has a member that comprises “a first aperture disposed along a

1 top end,” “a second aperture disposed along a second end,” and “a channel extending from
 2 the first aperture to the second aperture.” (*Id.*) And Claim 22 of the ’700 patent says “a
 3 first aperture disposed along a top end,” “a second aperture disposed along a second end,”
 4 and “a first channel extending from the first aperture to the second aperture.” (*Id.*)

5 The Court has already concluded that a downward-facing orientation is not a
 6 required part of the patent. In light of that, and after reading the claim language above, the
 7 Court agrees with LDG that “Top” and “Bottom” do not need to be defined here. *See*
 8 *Infection Prevention Techs., LLC v. Lumalier Corp.*, No. 10-12371, 2012 WL 3248232, at
 9 *20 (E.D. Mich. Aug. 8, 2012) (rejecting an attempt to add “vertically” and “horizontally”
 10 to construction of the terms “above” and “around” because their ordinary meaning was
 11 “obvious, even to a lay person.”). As the Court explains throughout this order, it will not
 12 attempt to define terms where the plain and ordinary language is sufficient for the trier of
 13 fact and will not add ambiguity where none exists—which is what Sansi’s attempted
 14 construction attempts to do.

15 Additionally, Sansi fails to show that without construction a trier of fact would be
 16 unable to, without “reasonable certainty,” understand “the scope of the invention” as
 17 required by the appropriate legal standard. *Nautilus*, 572 U.S. at 901. Therefore, the Court
 18 will not construe the claim or terms here.

19 **C. Wherein clauses**

Sansi Construction	LDG Construction
21 Requires the fixture to be installed and 22 operating to be met, and the ability to 23 uniquely identify that heat is dissipating 24 from the member to the interior of the 25 channel through the specified aperture in 26 all use cases. 27 Alternatively, indefinite,	Not indefinite. Plain and Ordinary meaning: the channel needs to be “configured” such that heat or air flows as claimed. To the extent these terms are construed, each term is different and should be separately construed: wherein the channel transfers at least a
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1	portion of heat generated by the light emitting diode through the first aperture: the channel is configured for at least a portion of the heat generated by the LED to be transferred to moving air in the channel that exits the channel through the first aperture.
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10	wherein air enters the channel and transfers at least a portion of the heat generated by the first and second LEDs through the first aperture: the channel is configured for at least a portion of the heat generated by the first and second LEDs to be transferred to moving air in the channel that exits the channel through the first aperture.
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19	wherein air enters the channel through the second aperture and exits the channel through the first aperture: the channel is configured for air to enter through the second aperture and exit through the first aperture.
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26	wherein air passes through the channel from the second aperture to the first aperture and transfers at least a portion
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28	

1	of heat generated by the first LED and
2	the second LED through the first
3	aperture: the channel is configured for air
4	to enter through the second aperture and exit
5	through the first aperture and for at
6	least a portion of the heat generated by the
7	first LED and the second LED to be
8	transferred to the moving air and exit the
9	channel through the first aperture.
10	
11	wherein air enters the channel through
12	the second aperture and exits the
13	channel through the first aperture: the
14	channel is configured for air to enter
15	through the second aperture and exit
16	through the first aperture.
17	
18	wherein air passes through the channel
19	from the second aperture to the first
20	aperture and transfers at least a portion
21	of the heat generated by the first LED
22	and the second LED through the first
23	aperture: the channel is configured for air
24	to enter through the second aperture and exit
25	through the first aperture and for at
26	least a portion of the heat generated by the
27	first LED and second LED to be transferred
28	to moving air and exit the channel through

1

	the first aperture.
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(Doc. 61-1 at 11–12.)

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Sansi has three disputes about the wherein clauses. The parties first dispute when a light fixture can be an infringing fixture. Sansi argues that it can only be an infringing fixture when it is operating—so air and heat can move as required by the claim. (Doc. 43 at 19.) Second, the parties dispute how infringement must be shown. Sansi argues infringement may only be proven by showing how the heat and air move. (*Id.*) Finally, Sansi argues that if the Court does not adopt their construction, then the terms are indefinite. (Doc. 43 at 20.)

10

LDG responds to Sansi’s first argument by stating that their claims are apparatus, not method, claims. (Doc. 45 at 20.) “[A]pparatus claims cover what a device *is*, not what a device *does*.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990); *see also INVT SPE LLC v. Int’l Trade Comm’n*, 46 F.4th 1361, 1371 (Fed. Cir. 2022) (“Whether infringement requires actual performance of the recited functions by the accused device depends on the claim language.”). To emphasize this distinction, LDG points to the Federal Circuit’s ruling in *Alere, Inc. v. Rembrandt Diagnostics, LP*, 791 F. App’x 173 (Fed. Cir. 2019). There, the court analyzed a similar wherein clause and found that rather than inform the court of how the device operates, a clause of this type “includes functional language that informs us of the structural requirements of the claim.” *Id.* at 177.¹ Sansi instead relies on a decision in *Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc.*, 555 F.3d 984 (Fed. Cir. 2009). In *Ball Aerosol*, the Federal Circuit was evaluating a district court’s finding of infringement, not construction. *Id.* at 988.

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¹ The similar language reads as follows: “wherein the flow control channel *is disposed* inside the sample fluid container with the liquid pervious side oriented toward the base of the sample fluid container so that *the assay sample fluid, when added to the container, is delivered to the sample loading zone of the assay test strip by entry through a liquid pervious side of the flow control channel* without migration through an intermediate structure . . .” *Alere*, 791 F. App’x at 176–77.

1 Therefore, the case is not persuasive, as we are in the construction stage. Given this, the
 2 Court agrees with LDG that these are apparatus claims, and it will construe them as such.

3 In addition to noting that these are apparatus claims, LDG also notes that Sansi's
 4 construction arguments go beyond the scope of what a court should do in a construction
 5 order. (Doc. 45 at 21.) Instead of offering a definition of how to interpret these claims,
 6 Sansi's approach—i.e., including phrases such as “operating to infringe” and “prove
 7 infringement” in their arguments—indeed appears to be based on an infringement analysis
 8 which is not before this Court here. *See Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d
 9 1317, 1324 (Fed. Cir. 2009) (“Claims are properly construed without the objective of
 10 capturing or excluding the accused device.”); *Warner Mfg. Co. v. Armstrong*, 504 F. Supp.
 11 2d 589, 591 (D. Minn. 2007) (“Noninfringement is never relevant to claim construction.”).

12 Finally, Sansi's proposed construction also adds terms into the claims which, as the
 13 Court has explained throughout this order, is not how a Court should properly construe a
 14 claim. Here, Sansi asks the Court to add substantive modifiers to the claim, including
 15 “uniquely identify” and “in all cases.” As LDG notes, these both hamstring the claims *and*
 16 add extra ambiguity—thereby defeating the purpose of a *Markman* hearing. (Doc. 45 at
 17 22.)

18 Because LDG's proposed construction avoids ambiguity, is not indefinite, and stays
 19 in the scope of claim construction, the Court will use its construction.

20 **D. “[at least] a portion of the second member being disposed above the LEDs”**

Sansi Construction	LDG Construction
Indefinite	Not indefinite At least a portion of the second member extends beyond the location of any LED on the first member in a direct from the bottom end to the top end.

27 (Doc. 61-1 at 9.)

28 This language is found in the '608 patent. (Doc. 43-2 at 34–38.) Sansi argues that

1 if the claims are not construed to require the light fixture be positioned in a downward
 2 facing orientation, then this claim is indefinite and therefore must be construed by the
 3 Court. (Doc. 43 at 20.) Alternatively, LDG again argues that this claim contains plain
 4 English that needs no judicial construction. (*Id.* at 23.) They specifically argue that the
 5 word “above” has a well understood meaning of “a higher place or over.” (*Id.*) The Court
 6 agrees. Although Sansi attempts to re-define “above” as “downward facing,” like the Court
 7 has already concluded regarding a different claim, it should apply the plain and ordinary
 8 meaning of a word unless intrinsic evidence supports something contrary. *See Infection*
 9 *Prevention Techs.*, 2012 WL 3248232, at *20. Therefore, the Court determines it does not
 10 need to construe this term or claim.

11 **E. “mounting member . . . at least a portion of the mounting member extending in a**
 12 **direction substantially orthogonal to a longitudinal axis of the first**
 13 **member/mounting member extending outwardly in a direction substantially**
 14 **orthogonal to a longitudinal axis of the channel”**

Sansi Construction	LDG Construction
a member separate from the first and second members for mounting the fixture with a major axis apart from and orthogonal to the longitudinal axis of the first member/channel Alternatively, indefinite.	Not indefinite A constituent part of the light fixture having a structural feature for mounting the fixture to another structure.

22 (Doc. 61-1 at 7.)

23 This language is from the ’608 and ’923 patents. (Doc. 43-2 at 34–38; Doc. 43-2 at
 24 16–26.) Sansi specifically takes issue with the word “extending” as applied to “mounting
 25 member.” (Doc. 46 at 13.) That said, Sansi does not fully explain why “extending” is
 26 ambiguous, or how it should be interpreted. In fact, “extend” is an easily understood term,
 27 which like other terms in this order need no construction. Because there is little analysis
 28 on the term “extend” the Court instead continues the construction analysis based on what

1 constructions the parties have offered in the above chart.

2 It appears that Sansi is asking the Court take terms out of the claim, but these are
 3 terms that have already been defined by the Federal Circuit. *See Siliconix Inc.*, 2004 WL
 4 5645572, at *6 (N.D. Cal. Sept. 10, 2004) (citing *LNP Eng’g Plastics, Inc. v. Miller Waste*
 5 *Mills, Inc.*, 275 F.3d 1347, 1354 (Fed. Cir. 2001) (defining “substantially” as “largely but
 6 not wholly that which is specified.”) If the Court removed “substantially” and adopted
 7 Sansi’s interpretation, it would narrow the claim language to an implied exact 90-degree
 8 (orthogonal) design. This is not what is already included in the patent language, which
 9 based on the Federal Circuit’s definition, does specific work in a patent claim and would
 10 be error to remove. *See Vederi, LLC v. Google, Inc.*, 744 F.3d 1376, 1383 (Fed. Cir. 2014)
 11 (“By effectively reading ‘substantially’ out [of] the claims, the district court erred.”).

12 Further, as LDG notes, it appears Sansi is attempting to construe the claim in a way
 13 beholden to the patent’s example drawing. (Doc 43 at 21–22.) This drawing, however, is
 14 merely an example—it is not all encompassing. The Court should not construe the claims
 15 to match only the example markup. *See Skedco, Inc. v. Strategic Operations, Inc.*, 685 F.
 16 App’x 956, 960 (Fed. Cir. 2017) (“a claim is not limited to inventions looking like those in
 17 the drawings”) (citing *MBO Labs, Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333
 18 (Fed. Cir. 2007)). Because “substantially” has meaning, “extending” is a well-known plain
 19 English word, and the Court is not meant to construe the claims to match an example, the
 20 Court will not construe this term.

21 **F. “Removably coupled”**

Sansi Construction	LDG Construction
coupled such that it can be easily decoupled for removal, adjustment and/or replacement	Plain and ordinary meaning (coupled such that it can be removed)

26 (Doc. 61-1 at 10.)

27 This language comes from the ‘700 patent. LDG argues that Sansi’s construction
 28 is inserting “easily” into the patent’s terminology where it otherwise does not exist. In

1 making this argument, LDG relies on the ruling in *Dorel Juvenile Group, Inc. v. Graco*
 2 *Children's Prods., Inc.*, 429 F.3d 1043, 1044–47 (Fed. Cir. 2005). In that case, the claims
 3 used the terms “removably secured” and “removably attached” and the Federal Circuit
 4 affirmed the district court’s order refusing to add the term “easily” to the claims. *Id.* at
 5 1046–47. However, in that case, the district court did recognize that the terms implied that
 6 any detachment would not damage the car seat at issue. *Id.* at 1045.

7 Despite this, Sansi argues that LDG’s construction is too broad because any two
 8 items are removable if one is willing to break them apart. The Court agrees on this point,
 9 but still rejects Sansi’s construction. What does “easily” mean? It means something
 10 different to an end user of the product who purchases it for retail sale, an end user who
 11 uses the product for commercial purposes, and an entirely different thing to the
 12 manufacturer. Inserting “easily” into the claim construction gets us nowhere further than
 13 LDG’s plain and ordinary construction. Therefore, following the court in *Dorel*, the Court
 14 construes “removably coupled” to mean coupled such that it can be removed without doing
 15 damage to the fixture.

16 **G. “a plurality of receiving surfaces, each receiving surface configured to receive at**
 17 **least one LED and wherein the plurality of receiving surfaces provide a plurality**
 18 **of different configuration for a positioning of the plurality of LEDs, each of the**
 19 **plurality of different configuration corresponding to a different optical**
 20 **distribution of the light fixture.”**

Sansi Construction	LDG Construction
21 requires the ability to use fewer than all 22 receiving surfaces for LEDs on the fixture 23 to change optical distribution of light from 24 fixture	Plain and ordinary meaning

25
 26 (Doc. 61-1 at 20.)

27 This language comes from the ’700 patent. Sansi argues that the specification and
 28 prosecution history support their construction. (Doc. 43 at 12.) Sansi explains that a fixture

1 with only one configuration (i.e. with all receiving surfaces occupied by an LED) adds a
 2 limitation that is not in the claim language. (Doc. 43 at 27.)

3 LDG argues that Sansi is attempting to import a negative limitation that doesn't
 4 exist in the claim language by restricting "plurality of receiving surfaces" to "fewer than
 5 all receiving surfaces." (Doc. 45 at 29.) The language itself—when coupled with language
 6 from the specifications—shows that using "fewer than all receiving surfaces" is allowed,
 7 but not required. Thus, the Court finds that this phrase needs no construction and should
 8 be interpreted by its plain and ordinary meaning.

9 **H. "Substantially frusto-conical shape"**

Sansi Construction	LDG Construction
11 having the shape of a frustum of a cone, 12 with straight sides (the cross section of 13 which is a frustum of two triangles); does 14 not encompass frusto-spherical shapes.	Having a diameter that increases from a narrow end to a wide end.

15 (Doc. 61-1 at 15.)

16 This language comes from the '700 patent, dependent claim 14. (Doc. 43-2 at 14.)
 17 First, Sansi argues that the Court should construe the claim as defined in the chart above
 18 (Doc. 43 at 28.), but this appears to be largely based on one of the patent's examples—which
 19 serves only as one embodiment not as a binding showing of the patented idea. LDG argues
 20 that in addition to attempting to construe this claim purely based on the patent example,
 21 Sansi is also inserting terms into the claim which are not and were not intended to be in the
 22 patent. (Doc. 45 at 30.) The Court agrees. Neither "straight side" nor "cross-sections" are
 23 present in this claim, therefore the Court would be remiss to add them.

24 Second, Sansi's construction removes the term "substantially" from the claim
 25 altogether. In offering its construction, "having the shape" removes a margin for difference
 26 which "substantially" necessarily adds to the claim. In fact, as explained in a previous
 27 claim including the same term "[t]he Federal Circuit has already considered the term
 28 'substantially' and has defined it as 'largely but not wholly that which is specified.'"

1 *Siliconix Inc.*, 2004 WL 5645572, at *6 (quoting *LNP Eng'g Plastics, Inc.*, 275 F.3d at
 2 1354). Substantially is used to avoid mathematical precision in patents. Writing it out of
 3 the claim alters that which was drafted in for specific reasons, so again, the Court would
 4 be remiss to remove that which the patent contains.

5 Finally, the Court agrees with LDG that Sansi's injection of a negative limitation
 6 ("does not encompass") adds more ambiguity to the claim than it solves. (Doc. 45 at 31.)
 7 See, e.g., *Diamond Coating Techs., LLC v. Hyundai Motor Am.*, No. 8:13-cv-01480-MRP
 8 (DFMx), 2014 WL 5698445, at *11 (disfavoring "[u]nnecessary language [that] may inject
 9 ambiguity in the Court's construction"). By adding this negative limitation, it would
 10 require a jury to determine what *was not* covered under the claim rather than determining
 11 what is. Therefore, the Court will not construe this claim.

12 **I. "Substantially cylindrical shape"**

Sansi Construction	LDG Construction
Having a cylindrical shape with straight parallel sides; does not encompass frustospherical shapes.	Plain and ordinary meaning

17 This language comes from the '700 patent, dependent claim 15. Sansi argues that
 18 the Court should construe the term because the plain and ordinary meaning is in debate.
 19 (Doc 43 at 28.) However, like the term analyzed above, Sansi's offered construction
 20 removes language from the construction that the patent specifically includes—the word
 21 substantially. As LDG points out, Sansi agrees that the term should be construed along its
 22 plain and ordinary meaning, but then their offered construction deviates from the plain and
 23 ordinary meaning by removing "substantially" from the claim altogether. (Doc. 45 at 32.)
 24 And again, Sansi adds a negative limitation ("does not encompass") which adds more
 25 ambiguity to the claim. (*Id.*) For the same reasons outlined in the prior section, the Court
 26 agrees with LDG and will not construe this language.

27 **J. "Wherein at least one LED and the at least another LED are positioned co-planar**
 28 **to each other"**

Sansi Construction	LDG Construction
Indefinite.	Not indefinite.
Alternatively, mounted on the same planar surface	Plain and ordinary meaning (wherein the at least one LED and the at least one other LED are positioned in the same plane)

(Doc. 61-1 at 17–18.)

This language comes from the '923 patent, dependent claim 2. (Doc. 43-2 at 26.) Here, Sansi takes issue with the term "co-planar." "Co-planar" is defined as "lying or acting in the same plane." Merriam-Webster Online, <https://www.merriam-webster.com/dictionary/coplanar> (last visited Jan. 17, 2024). Sansi argues that the term co-planar is meaningless because any two points in the universe are always co-planar. (Doc. 43 at 29.) LDG argues that Sansi is attempting to create a theoretical argument that is disingenuous in context of the claims and specifications at issue here. (Doc. 45 at 33.) The Court agrees with LDG.

This case does not involve any two points in the universe, it involves two LEDs attached to one or more facets around a member, as described in the various patents. This language comes from the '923 Patent at dependent claim 2. (Doc. 43-2 at 26.) LDG argues that the term is not indefinite, and an ordinary person would understand the term when considered in light of Claim 1. (Doc. 43 at 33.) The relevant portion of Claim 1 says that "a plurality of light emitting diodes (LEDs) disposed on the fixture adjacent to the channel, wherein at least one LED is located on one side of the channel and at least another LED is located on an opposite side of the channel." (Doc. 43-2 at 26.) Alternatively, LDG argues that the dependent claim 2 suggests that the LEDs on opposite sides of the channel are on the same plane and not, as Sansi argues, on the same planar surface. The Court agrees.

Sansi has not shown by clear and convincing evidence that this phrase is indefinite. Therefore, the Court finds that it should be given its plain and ordinary meaning and will not construe the term.

1 **K. “a core region**

Sansi Construction	LDG Construction
The region defined by a physical structure within the channel along the longitudinal axis of the channel.	Plain and ordinary meaning

6 (Doc. 61-1 at 18.)

7 This language comes from the '923 Patent at dependent claim 5. Sansi asks that the
 8 Court impose a physical structure to define the core region. (Doc. 43 at 31.) However, the
 9 Court finds nothing in the cited specification language that suggests a physical structure is
 10 described or necessary. The core region could be defined by a structure but could simply
 11 be a space in the channel. As the Court has found when construing other claims, it will not
 12 insert or remove words from the claim language. Here, Sansi is asking the Court to insert
 13 “physical structure” into the claim where it is otherwise not there. The Court will again
 14 not construe this claim, and instead leave the plain and ordinary meaning of “core region”
 15 to the factfinder.

16 **L. “Wherein the plurality of LEDs are asymmetrically disposed about the
 17 channel and configured to emit an asymmetric light output”**

Sansi Construction	LDG Construction
neither the disposition of LEDs about the channel nor the light output has any identifiable symmetries.	Plain and ordinary meaning

22 Here, the disputed terms are “asymmetrically” and “asymmetric.” It appears that
 23 both sides agree that these terms equate to “not symmetrical.” Despite this, Sansi asks this
 24 Court to construe the term. Sansi bases its request on the fact that they disagree with LDG’s
 25 infringement contention where they describe asymmetry of light output. Sansi speculates
 26 that LDG will argue that asymmetry exists simply because one can locate a single plane of
 27 asymmetry even when symmetry exists among other planes. However, the fact that Sansi
 28 believes LDG is misapplying the term is not justification for construing a term that needs

1 no construction. The jury would be the ultimate decider on what is asymmetric as
 2 understood by its plain and ordinary meaning. Therefore, the Court will not construe this
 3 claim, and will leave its plain and ordinary meaning before the jury.

4 **M. “Transfer..heat...by convection”**

Sansi Construction	LDG Construction
<p>6 Requires the fixture to be installed and 7 operating to be met, and the ability to 8 uniquely identify that heat is dissipating 9 by convection.</p> <p>10 Alternatively, indefinite.</p>	<p>Term “convection” in claim 20 of the ’923 patent and claim 18 of the ’608 patent is a typographical error and should be corrected to “conduction.”</p> <p>The first and second LEDs are in thermal communication with the member and configured to transfer heat to the member by conduction.</p>

14 This language comes from the ’923 patent, dependent claim 20 and the ’608 patent
 15 dependent claim 18. (Doc. 43-2 at 26, 38.) LDG is seeking judicial correction of the claim
 16 language of the claim portions that say “by conduction” instead of “by convection.” (Doc.
 17 45 at 36.) Judicial correction to patent language is appropriate where “(1) the correction is
 18 not subject to reasonable debate based on consideration of the claim language and the
 19 specification and (2) the prosecution history does not suggest a different interpretation of
 20 the claims.” *Pavo Sols. LLC v. Kingston Tech. Co., Inc.*, 35 F.4th 1367, 1373 (Fed. Cir.
 21 2022). LDG contends that both these prongs are met here, and the Court should correct
 22 and construe this language to be “transfer heat by conduction” rather than convection.
 23 (Doc. 45 at 36.) Alternatively, Sansi argues that judicial correction is not warranted
 24 because the language is not ambiguous and should be construed as written. (Doc. 43 at
 25 34.) Because Sansi argues that the language should be applied as written, it does not
 26 present arguments on what the prosecution suggests about the language. (*Id.*)

27 As to prong one, the Court agrees with LDG that the claim language and
 28 specification support correction. Here, the first prong is met, as all other patent claims

1 require heat be transferred by conduction, not convection. Additionally, the specification
2 supports correction as it also only includes “conduction” in its terminology when
3 discussing how heat is transferred under the patent. When reviewing the patents in
4 conjunction, it appears to the Court that if it construed the language as written it would
5 require the LEDs to be *operating*, rather than just be *present*, to infringe. In the scheme of
6 how the language throughout the patents appears, this does not seem to be reasonable.

7 As to prong two, the Court also agrees with LDG that there is no prosecution
8 evidence pointing to the contrary. Further, Sansi also does not provide this evidence.
9 Therefore, the Court will correct this claim language as offered by LDG.

10 **IV. CONCLUSION**

11 **IT IS ORDERED** constructing the claims as decided above.

12 Dated this 17th day of January, 2024.

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Honorable Susan M. Brnovich
United States District Judge

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